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ABSTRACT

The guide has been prepared to assist instructor applicants in preparing for the practical test for a Flight Instructor Certificate. It contains information on the scope, standards, and administration of the new instructor practical test. A suggested Applicant's Test Checklist is included. Aspects of the oral test are preparation of flight lesson plan, evaluation of student flight performance, effective preflight and postflight instruction, flight instructor responsibilities and certifying procedures, and performance and analysis of standard flight training procedures and maneuvers. The flight test is concerned with the conduct of a flight lesson, analysis and correction of student pilot flight errors, and performance and analysis of standard flight training procedures and maneuvers. (MS)

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# PRACTICAL TEST GUIDE

[ Part 61 Revised ]

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# FLIGHT INSTRUCTOR

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1973

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

ED 085558

# PRACTICAL TEST GUIDE

[Part 61 Revised]

# FLIGHT INSTRUCTOR

**Airplane**
- Single-engine
- Multiengine

**Rotorcraft**
- Helicopter
- Gyroplane

**Glider**

**Instrument**
- Airplane
- Helicopter

**1973**

**DEPARTMENT OF TRANSPORTATION**
**FEDERAL AVIATION ADMINISTRATION**
Flight Standards Service

## PREFACE

Part 61 (revised) of the Federal Aviation Regulations, effective November 1, 1973, establishes a new concept of pilot training and certification requirements. To provide a transition to these revised requirements, Part 61 (revised) permits an applicant, until November 1, 1974, to meet either the previous requirements or those contained in Part 61 (revised). Advisory Circular 61–14A, *Flight Instructor Practical Test Guide*, Revised 1969, outlines the previous requirements.

This guide has been prepared by the Flight Standards Service of the Federal Aviation Administration to assist instructor applicants in preparing for the practical test for a Flight Instructor Certificate bearing the ratings specified in Part 61 (revised). It contains information on the scope, standards, and administration of the new instructor practical test. A suggested test checklist is included for the use of those who may find it to be helpful.

In addition to providing help to the applicant and his instructor, this guide will be useful to the FAA Inspector in the conduct and standardization of practical tests.

This guide provides information and guidance on the portions of the flight instructor practical test which cover flight instructing procedures; however, the applicant should refer to the private, commercial, and instrument flight test guides appropriate to the instructor rating he seeks (category and/or class), for guidance in the performance of flight training procedures and maneuvers. Additionally, it is recommended that the applicant preparing for the flight instructor practical test use and be familiar with the applicable *Federal Aviation Regulations;* the FAA *Airman's Information Manual;* AC 61–16A, *Flight Instructor's Handbook;* and AC 61–21, *Flight Training Handbook;* AC 61–13, *Basic Helicopter Handbook;* or AC 61–27B, *Instrument Flying Handbook;* and other pertinent advisory circulars.

Comments regarding this guide may be directed to the Department of Transportation, Federal Aviation Administration, Flight Standards Technical Division, P.O. Box 25082, Oklahoma City, Oklahoma 73125.

## APPLICANT'S TEST CHECKLIST

(Suggested)

### APPOINTMENT WITH INSPECTOR

Name _____

Time/Date _____

### ACCEPTABLE AIRCRAFT WITH DUAL CONTROLS

- ☐ Aircraft Documents:
  - Airworthiness Certificate
  - Registration Certificate
  - Operating Limitations
  - Owner's Manual/Aircraft Flight Manual
- ☐ Aircraft Maintenance Records:
  - Airworthiness Inspections
- ☐ FCC Station License

### INSTRUCTOR MATERIAL

- ☐ Lesson Plan
- ☐ View-Limiting Device
- ☐ Aircraft Checklist

### PERSONAL RECORDS

- ☐ Pilot Certificate
- ☐ Medical Certificate
- ☐ Signed Recommendation
- ☐ Written Test Results
- ☐ Logbook
- ☐ Notice of Disapproval (if applicable)
- ☐ Approved School Graduation Certificate (if applicable)
- ☐ FCC Radiotelephone Operator Permit

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# GENERAL INFORMATION

## PART 61 (REVISED) CONCEPT

Part 61 of the Federal Aviation Regulations has been revised to reflect the increasing complexity of the modern aircraft and its flight environment. In the past, applicants could meet airman certification requirements by passing a written test and developing the ability to perform the maneuvers listed for the flight test. The new concept requires that applicants be trained in and show competency in the *pilot operations* required by Part 61 (revised), rather than merely performing certain flight maneuvers.

The pilot operations in which competency is required are normal operations necessary to the practical use of aircraft. Part 61 (revised) does not prescribe the procedures and maneuvers to be used by flight instructors for teaching these operations. The instructor is responsible for selecting appropriate training procedures and maneuvers which will help his student understand the basic principles involved in performing the pilot operations. Those training maneuvers are described in FAA approved training manuals and flight test guides for each certification or rating area.

Under this concept it is increasingly important for every flight instructor to know the purposes of, and how to perform correctly, each flight training procedure or maneuver. He must know their use in flight training and the training limitations of each. He must be able to select and use them effectively on the basis of his own evaluation of the aptitude, background, and deficiencies of the student involved.

## FLIGHT INSTRUCTOR PRACTICAL TEST

The flight instructor practical test will consist of an oral and a flight test on the subjects specified by subparagraphs (1) through (5) of § 61.187(a), of Part 61 (revised), and on the performance and analysis of standard flight training procedures and maneuvers appropriate to the instructor rating sought. With the exception of demonstrations of spins and autorotative descents-to-touchdown, the flight training procedures and maneuvers the instructor applicant may be asked to demonstrate will be selected by the Inspector at the time of the test. These are contained in the FAA Private, Commercial, and Instrument Flight Test Guides appropriate to the category and/or class rating sought.

## USE OF THIS GUIDE

In outlining the subjects (indicated by Roman numerals) to be covered on the oral

and flight portions of the flight instructor practical test, this guide serves only to implement and explain the test requirements of the revised §§ 61.183(e) and 61.187. The guide contains the **Objective** of each required subject and provides a **Description** and **Acceptable Performance Guidelines.**

The **Objective** states briefly the purpose of presenting each subject required on the practical test.

The **Description** explains how each subject required on the practical test should be presented and describes the performance which will best fulfill the objective of the subject.

**The Acceptable Performance Guidelines** include the factors which will be taken into account by the Inspector in deciding whether the applicant has met the objective of the subject.

The instructor applicant's flight performance will be evaluated on his judgment, knowledge accuracy, and smoothness, and on his analysis of flight training procedures and maneuvers. Failure to exercise proper vigilance or to take positive action to ensure that the flight area has been adequately cleared for conflicting traffic shall be disqualifying.

The instructor applicant will be expected to know the meaning and significance of the aircraft performance speeds important to the

pilot and be able to readily determine these speeds for the aircraft used for the flight test. These speeds include:

$V_{so}$ – stalling speed or minimum steady flight speed in landing configuration.

$V_y$ – speed for the best rate-of-climb.

$V_x$ – speed for the best angle-of-climb.

$V_a$ – design maneuvering speed.

$V_{ne}$ – never exceed speed.

$V_{le}$ – maximum landing gear extended speed.

$V_{fe}$ – maximum flap extended speed.

$V_{mc}$ – minimum control speed with critical engine inoperative.

$V_1$ – critical engine failure speed.

$V_2$ – takeoff safety speed.

An applicant familiar with the "new concept" implemented by the flight test guides for flight tests leading to the issuance of pilot certificates should note that the *Flight Instructor Practical Test Guide* differs from these in that its test items are *specifically required* rather than optionally selected by the Inspector conducting the test. Only under *Performance and Analysis of Standard Flight Training Procedures and Maneuvers* is the Inspector authorized to select or "sample" items.

## INSTRUCTOR PRACTICAL TEST PREREQUISITES

An applicant for a flight instructor practical test is required by the Federal Aviation Regulations to have:

1. Passed the required flight instructor written test/s within 24 months before the date he takes the practical test;

2. A commercial pilot or airline transport pilot certificate with an aircraft rating appropriate to the flight instructor rating sought;

3. An instrument rating, if applying for an airplane or an instrument instructor rating;

4. The aeronautical experience and instruction required for a flight instructor certificate with the rating sought;

5. A first or second class medical certificate issued within the past 12 months;

6. Reached the age of 18 years; and

7. A written statement from an instructor who meets the requirements of § 61.187 (b) certifying that he has given the applicant flight instruction in the subjects required by § 61.187(a) and that he has found the applicant competent to pass a practical test on these subjects.

## AIRCRAFT AND EQUIPMENT REQUIRED FOR THE PRACTICAL TEST

The instructor applicant must provide a certificated aircraft for the practical test which is appropriate for the procedures and maneuvers pertinent to the rating sought:

1. The aircraft shall have fully functioning dual controls;

2. The aircraft shall be capable of all of the flight operations required for the instructor rating sought and have no operating limitations which prohibit the performance of those operations. If an airplane or instrument instructor rating is sought, the aircraft must also have appropriate flight instruments for the control of the aircraft during instrument conditions. Appropriate flight instruments are considered to be those outlined in FAR Part 91 for flight under instrument flight rules.

3. For an instrument instructor rating, the aircraft must be equipped as provided in AC 61-56, *Instrument Pilot—Airplane Flight Test Guide*, or AC 61-64, *Instrument Pilot—Helicopter Flight Test Guide*, as appropriate; and

4. For all other instructor ratings, the aircraft must meet the requirements for the private and commercial pilot flight tests with the appropriate category and class ratings.

# FLIGHT INSTRUCTOR PRACTICAL TEST

## Oral Test

### I. PREPARATION OF FLIGHT LESSON PLAN

***Objective***

To determine that the instructor applicant can devise and organize an effective flight lesson appropriate to the background, flight experience, and ability of a specific student.

***1. Description*** The instructor applicant will be requested to prepare, *after* he reports for the test, a lesson for a student with the background, flight experience, and ability specified by the Inspector. A previously prepared lesson plan will not be accepted. The lesson plan should include at least:

a. The student's name and date of the lesson;

b. The lesson subject (assigned by the Inspector);

c. Objectives of the lesson;

d. Flight elements involved;

e. Schedule of training within lesson;

f. Equipment to be used;

g. Instructor's actions;

h. Student's actions;

i. Evaluation standards.

The assigned lesson will be appropriate to the flight instructor rating sought and consist entirely or primarily of dual flight instruction.

**2. *Acceptable Performance Guidelines*** The instructor applicant shall be able to prepare, in not more than 20 minutes, a flight lesson appropriate to the described student. The lesson plan shall be appropriate to the assumed background, flight experience, and ability of the student and in sufficient detail to realistically prescribe the training proposed. The evaluation standards for completion of the lesson shall match the lesson objective. The lesson should be capable of accomplishment within 30 minutes to 1 hour of flight time.

## II. EVALUATION OF STUDENT FLIGHT PERFORMANCE

### *Objective*

To determine that the instructor applicant can evaluate a student pilot's competency and decide when he is ready for more advanced instruction, solo operating privileges, or a flight test recommendation.

***1. Description*** The instructor applicant will be asked to describe in detail his pro-

cedure and standards for determining when a student he has instructed is ready to receive a more advanced stage of instruction, receive an endorsement for first solo or solo cross-country flight, or receive a flight test recommendation. Specifically, this may include evaluations leading to any of the following:

a. Initial takeoff and landing instruction;

b. Certificate endorsement for first solo;

c. Certificate endorsement for solo in additional type of aircraft;

d. Certificate endorsement for first solo cross-country;

e. Logbook endorsement for continuing solo operations;

f. Logbook endorsement for a specific cross-country flight;

g. Recommendation for a flight test for a pilot certificate, instrument rating, or additional aircraft rating.

**2. *Acceptable Performance Guidelines***

The evaluation standards which the instructor applicant proposes to use for determining when to issue any of the authorizations or endorsements listed in the Description above shall be appropriate to the operating privileges to be extended. These standards must be sufficient to establish the student's ability to conduct the operations involved safely, under

normal flight conditions and situations, and to cope with foreseeable emergencies.

## III. EFFECTIVE PREFLIGHT AND POSTFLIGHT INSTRUCTION

### *Objective*

To determine that the instructor applicant can conduct effective preflight briefings and postflight critiques for each flight lesson.

***1. Description*** The instructor applicant will be required to discuss the function and benefits of thorough preflight briefings and postflight critiques and to outline the general coverage to be expected for this instruction. In addition, he will be asked to present to the Inspector, as he would to a student, a preflight briefing appropriate to the lesson plan he has developed under Oral Test, Subject I and a postflight critique following his presentation of the lesson under Flight Test, Subject I of this guide.

***2. Acceptable Performance Guidelines*** The instructor applicant shall know the purpose and content of effective preflight briefings and postflight critiques and be able to relate them to the lesson plan prepared for the lesson involved. He shall be able not only to describe this instruction, but also to give briefings and critiques effectively to the Inspector acting in the role of a student.

## IV. FLIGHT INSTRUCTOR RESPONSIBILITIES AND CERTIFYING PROCEDURES

### *Objective*

To determine that the instructor applicant knows the responsibilities of a certificated flight instructor and the procedures for making the authorized certifications and endorsements.

***1. Description*** The instructor applicant will be asked to describe the responsibilities of a flight instructor regarding his students, and the execution of endorsements on the students' certificates and logbooks. In addition to providing correct, adequate flight and ground instruction and exercising responsibility toward his students and other pilots with whom he comes in contact, the following specific actions will be covered. The instructor applicant shall know how to enter and attest to the following:

a. A logbook entry for each period of flight instruction;

b. A logbook entry or other certification of ground instruction given;

c. Endorsement of a Student Pilot Certificate for first solo flight, including the appropriate logbook entry;

d. Endorsement of a Student Pilot Certificate for solo in an additional make and model of aircraft, including the appropriate logbook entry;

e. Endorsement of a Student Pilot Certificate for first solo cross-country flight, including the appropriate logbook entry;

f. Endorsement of a student logbook for continuing solo flights (as required within the past 90 days);

g. Endorsement of a student logbook for a specific solo cross-country flight, which may include enroute stops;

h. Endorsement of a student logbook for repeated solo flights over a specified course;

i. Execution of a recommendation for a pilot flight test, including the appropriate logbook entry; and

j. Endorsement of a pilot logbook for satisfactory completion of a biennial flight review.

**2. *Acceptable Performance Guidelines***

The instructor applicant shall be aware of his responsibility for giving correct, effective and conscientious instruction, and the importance of fostering student motivation. He shall be able to describe and demonstrate the accurate execution of each of the above listed items.

## V. PERFORMANCE AND ANALYSIS OF STANDARD FLIGHT TRAINING PROCEDURES AND MANEUVERS

### *Objective*

To determine that the instructor applicant is familiar with the objectives, performance,

and use of each standard flight training procedure or maneuver which he will be authorized to teach.

***1. Description*** The instructor applicant will be requested to describe in detail the objectives, correct performance, common student errors, and use in pilot training of flight procedures and maneuvers selected from the flight test guides appropriate to the instructor rating sought. The Inspector will question the applicant sufficiently to determine that he has personal experience in performing the procedures and maneuvers he describes.

***2. Acceptable Performance Guidelines*** The instructor applicant's descriptions and answers to specific questions shall be accurate and complete. His discussions shall show that he has personally performed each of the standard procedures and maneuvers involved and has correctly analysed the elements involved in their performance and in their effective use in training.

# FLIGHT INSTRUCTOR PRACTICAL TEST

## Flight Test

### I. CONDUCT OF FLIGHT LESSON

*Objective*

To determine that the instructor applicant can effectively administer the flight lesson he has planned under Oral Test Subject I.

***1. Description*** The instructor applicant will be requested to conduct the flight lesson he has planned with the Inspector assuming the role of the student. The applicant will be expected to administer the lesson just as he would for a student, including the preflight briefing and postflight critique. The Inspector may ask the applicant to omit portions of the lesson to expedite the test and may terminate the demonstration when he is satisfied with the applicant's competence.

***2. Acceptable Performance Guidelines*** The instructor applicant shall administer the lesson as planned but shall modify his plan if the assumed student's performance warrants special instruction on some point, repetition is needed to reinforce understanding, or progress is more rapid than expected. The

instruction shall be correct, to the point, and free from surplus information and guidance.

## II. ANALYSIS AND CORRECTION OF STUDENT PILOT FLIGHT ERRORS

### *Objective*

To determine that the instructor applicant can diagnose student pilot flight errors accurately and make appropriate, effective corrections.

***1. Description*** The Inspector, acting as a student with the specified flight experience, will perform flight maneuvers selected from the flight test guides pertinent to the instructor rating sought. He will ask the instructor applicant to appraise his performance and correct any errors he detects in the manner he finds most effective. The applicant will be expected to analyse the errors he detects and make corrections appropriate to the performance of a student with the specified flight experience. He should be prepared to explain to the Inspector the errors he detects and give the reasons for the corrective action he selects. This flight test item may involve the maneuver in the planned lesson or may be other training manuevers.

***2. Acceptable Performance Guidelines*** The instructor applicant shall make accurate observations and analyses of flight errors and shall recommend corrective action appropriate to the student's assumed ability. Consistently

correcting errors which are beyond the student's ability to recognize without explanation, or which are non-existent is indicative of a poor performance. The recommended corrective action must be understandable to the student and effective in correcting both the error and any misunderstanding which may have caused it.

## III. PERFORMANCE AND ANALYSIS OF STANDARD FLIGHT TRAINING PROCEDURES AND MANEUVERS

### *Objective*

To determine that the instructor applicant can perform, analyse, and apply each standard flight training procedure or maneuver to the appropriate pilot operation.

To determine that the airplane and glider instructor applicant can competently recover from incipient or fully developed spins and that the helicopter instructor applicant can safely accomplish touchdowns from autorotative descents.

***1. Description*** The instructor applicant will be requested to perform flight procedures or maneuvers selected from the flight test guides pertinent to the instructor rating sought. He will be asked to explain the elements involved in any of these procedures or maneuvers and their relation and importance to the correct performance of the whole procedure or

maneuver. He will also be asked to point out common errors in student performance and suggest the most effective corrective action.

During flight tests in airplanes and gliders, the instructor applicant may be asked to demonstrate that he can recognize and recover from spin situations which might be encountered in poorly executed maneuvers during student training flights. (At the discretion of the Inspector conducting the test, a logbook record attesting to the spin competency of the applicant may be accepted in lieu of the demonstration. The logbook record shall be certified by the flight instructor who conducted the spin instruction. Glider applicants may demonstrate spin competency in either gliders or airplanes.) If the Inspector places the airplane or glider in such a spin situation, the applicant should inform the Inspector that he is taking control, then promptly recover and return to normal level flight.

During flight tests in helicopters, the instructor applicant may be asked to accomplish a touchdown from the autorotative descent demonstration as might be necessary in the event of power failure during student training flights. (At the discretion of the Inspector conducting the test, a logbook record attesting to the competency of the applicant in accomplishing touchdowns from autorotative descents may be accepted in lieu of the demonstration. The logbook record shall

be certified by the flight instructor who conducted the touchdown from autorotative descent instruction.) If the Inspector requests that the touchdown be made, the applicant should continue the autorotative descent, flare, and touchdown in a level attitude, maintaining positive directional control.

**2. *Acceptable Performance Guidelines***

The assigned flight procedures and maneuvers shall be performed to the standards in the pertinent flight test guides.

When a spin demonstration is performed, the applicant shall recognize a spin situation and take prompt, positive control to recover with a minimum loss of altitude.

When a touchdown from an autorotative descent is performed, the applicant shall make a proper flare and a timely and effective pitch pull. He shall touch down smoothly at a safe speed, in a level attitude while maintaining positive directional control.

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